

Street Improvement Permit Process Information Packet

CONTRACTOR INFORMATION

How to Use This Packet

Throughout this text, you'll see icons in this left column, drawing your attention to important points, dates and critical tasks. They are listed below with short explanations.



Contact: This icon indicates that contact information, phone or email, will follow. For a copy of one of the packet sections, call (206) 684-5283.



Document Reference: This icon tells you when to refer to another document for further information.

Street Improvement Permit Process Information Packets

ABOUT THIS PACKET:

There are three packets that describe the Street Improvement Permit Process. Each packet can function independently or together, but each focuses on a different part of the development and permit process. Brief explanations of each packet are below. See the box at left for contact information.

- The **Applicant/Developer Packet** is one of three informational packets designed to help you understand and to meet the requirements that each applicant/developer must meet in the City of Seattle's street improvement permit process.
- The **Engineer/Designer Packet** explains the steps required of engineers/designers in the City of Seattle's street improvement permit process.
- The **Contractor Packet** explains the steps required of contracts in the City of Seattle's street improvement permit process.



Contact: For more information or to request a copy of one of the other two Street Improvement Permit Process packets, please call (206) 684-5283 or visit our website at http://www.seattle.gov/trans portation/stuse_sip.htm.

Contractor Packet

The Street Improvement Permit work is to be completed in concert with the Department of Planning and Development (DPD). Street Improvement Permits are separate from Seattle Public Utilities (SPU) watermain permit work. For information on SPU watermain permit requirements, refer to: http://www.seattle.gov/util/Engineering/Obtain_Utility_Services.

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Introduction

The Seattle Department of Transportation Street Use Inspection Unit is charged with providing inspection services on permitted projects in the public right-of-way for compliance to the City of Seattle standards specifications and approved plans. In addition to quality control, the inspectors ensure community interests are respected and protected.

PRE-CONSTRUCTION:

A pre-construction meeting will be held at least three weeks (no more than four weeks) prior to the start of construction. The meeting will cover a variety of general and project-specific topics. Seattle Department of Transportation's Street Use will coordinate attendance by required City personnel. The pre-construction meeting is critical to ensure the success of the project's construction phase. The Seattle Department of Transportation Inspector will identify the Applicant project attendees who need to attend. The Applicant (Developer Team Lead) will be responsible for the attendance of the representatives identified, including the project engineer/designer, general contractor and other subcontractors.

SURVEY SCHEDULING:

Scheduling of City-provided survey should be coordinated through the project's designated Street Use Inspector. Survey requests should be coordinated through the designated inspector and should be requested at least three weeks prior to the start of construction.

PROJECT COMPLETION AND CLOSE-OUT:

Following Street Use's acceptance of the project as complete, the Inspector will sign-off on the Street Improvement Permit, designating the work as completed. Street Use will close-out the project including final record keeping (e.g., drawing updates, database entries, final invoicing, etc.).

The Applicant is required to have a maintenance bond in place for the one-year period following Street Use signing off on the permit work as complete. Near the end of the one-year warranty period, the Street Use Inspector will revisit the project site and one of two things will happen.

- 1) If the inspector determines the project is in acceptable condition, the Applicant will be notified of such and the project maintenance bond can be released.
- 2) If the inspector determines that the project is not in acceptable condition and requires some corrective work, the Applicant will be notified of the corrective action required. Following the corrective action requested by the Inspector (and depending on the severity and nature of the corrections required), the surety bond may then be released.



Contact: For more information, please call (206) 684-5044.



Reference: This icon tells you when to refer to another document for further information.

Seattle Municipal Tower, 700 5th Avenue, Suite 3900, PO Box 34996, Seattle WA 98124-4996 Tel: (206) 684-ROAD (684-7623) TTY/TDD: (206) 684-4009, Fax: (206) 684-5180

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Topics of Discussion at Pre-Construction Meetings

I. General

Standard Plan book spec. book plan changes survey provided subsequent surveys weather impact clean operation agreement form

II. Submittal

traffic control plan material sources excavation support plan easements performance agreements releases neighborhood flyer const. schedule/time flow chart

III. Underground improvements:

air test
defects
compaction results
pipe class
manufactured wyes and tees
manhole channel
grouting
short stubs
flexible coupling
MH steps

IV. adjustment brick

castings bedding aggregate traps shoring safety backfill

V. Surface Improvements

testing of materials
forms inspection
expansion joints
subgrade preparation
compaction
asphalt sealants
finished surface requirements
safety
asphalt paving around casings
slope rights
lateral support

VI. Procedure for acceptance:

Certificate of Occupation final inspection acceptance by others completion inspection acceptance by others

VII. Obligations after acceptance

VIII. Others:

street lighting
signal operation
traffic control operation
King County Metro
landscaping

Notice of Pre-Construction Meeting

A pre-construction meeting for	the below-referenced p	project has been scheduled as follows:
Location of Meeting:		
Today's Date:	_ Date of Meeting:	Time:
To: Seattle Department of Tra	ansportation	Other Departments/Utilities
Traffic Control	-	Ballard Term R/R
Landscape Architect		SPU – Sewer and Drainage
Traffic Signal Operations		SPU – Water
Signal Design		Seattle City Light
Signs		Seattle Steam
		Puget Sound Energy Metro Sewer
Permittee/Owner:		Metro Transit
		Owest
		Burlington Northern R/R
Engineer/Architect:		Union Pacific Railroad
Contractor:		
Othere		
Others:		
From:	Street	Use Inspector Phone No:
Subject:		Work order or Activity No:
Permit No:		

NOTICE: Representatives of Developer or Owner, and/or Superintendent (if acting as Owner's agent) and all Sub-Contractors are required to be present at this meeting. If any cannot attend this meeting, please inform/cancel within 24 hours. Failure to meet this requirement will result in cancellation of meeting and charge for meeting time.

Summary of Pre-Construction Meeting Street Improvement Permit Sample:

Site Address:		
Owner:		
Contractor:		
Meeting Location:	Date:	





5555.

Document Reference: For information about overtime costs, etc., please see, Section 1-08.1(5) of 2000 Seattle Standard Specification Manual. The following items were discussed:

- 1. **Prior to start of construction:** The Contractor shall not commence with construction until first notifying the Inspector. The Contractor is directed to notify one call utility location (1-800-424-5555) prior to start of construction.
- 2. **Normal working hours:** Normal work activity is permitted between <u>7 a.m.</u> to <u>7 p.m.</u> Permission to work on holidays, Saturdays, Sundays or before 7 a.m. or after 7 p.m. is required in writing from the Director of Transportation. Costs for overtime inspection, etc., incurred by the City, shall be reimbursed by the Contractor as stated in Section 1-08.1(5) of 2000 Seattle Standard Specification Manual.
- 3. **Protection of Public and Private Utilities:** The Contractor/Permittee shall be responsible for the protection of public and private utilities. Timely notice and coordination with affected agencies are Contractor responsibilities.
- 4. <u>Notification of Damage</u>: The Contractor/Permittee shall make prompt notice of damage or disturbance of utilities, both public and private, as soon as possible.
- 5. <u>Safety Standards and Codes</u>: Safety Standards and Codes are enforced. The Contractor is advised to familiarize his/her work force with the current WISHA safety code requirements and make a prudent and resolved effort to provide and ensure job site safety for his work force, that of sub-contractors, and the general public.
- 6. **Control Survey:** City furnished control surveys will be provided only to that extent specifically funded and stated to be furnished by the City under the permit. If subsequent surveys are required, for whatever reason, it is understood that the additional costs for those surveys will be borne by the Permittee. Allow up to 3 weeks for scheduling City survey crews.
- 7. Public Relations: Due consideration of the Public is inherent in all construction activities undertaken in public rights-of-way. While acting as an agency of the City, the Contractor, sub-contractors, and their employees and suppliers will be expected to maintain amicable relations with the general public at all times. The Contractor is to instruct all employees to refrain from actions or language that could lead to confrontations with members of the general public. The Inspector is to be informed of complaints from members of the general public regarding the Contractor's activities.

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5.	Construction-related Sup	port Documents. Written submitt	al required is to be
		y the Contractor and approved by l or a portion of the following:	the City prior to start of
	☐Traffic control plan	☐ Material source form	☐ Sewer/Drain bypass plan
	☐ Lateral support plan	☐ Easement document	
	☐ Hold harmless agreement	☐ Release of damages document	
	☐ Neighborhood info flyer	☐ Construction schedule – time flow chart	

- 9. <u>Testing of Materials</u>: Material testing may be required at the discretion of the Inspector.
- 10. The Engineering Cost Estimate: The construction estimate (pre-construction and construction) is an estimate only and not a line bid item. The estimate is based upon the anticipated length of time it will take to complete the project. Since the City is not actually in control of the progress of the project, the actual cost of the project can exceed the estimate by a significant amount, due to complexity of review and construction, together with the overall duration of the project. Inspection is not provided on a full-time basis; however, the amount of time devoted to a project is determined by the Inspector to ensure quality control. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR FULL PAYMENT OF THE ACTUAL, NOT ESTIMATED, COSTS OF THE SERVICES PROVIDED BY THE CITY. These costs include direct labor costs (time expended by City employees on the project, whether in the field or in the office), vehicle and equipment usage, and overhead. The rates for these costs are available upon request from Seattle Department of Transportation.
- 11. Acceptance of the project by the City: Process for acceptance of maintenance responsibilities by the City of Seattle will begin when the Contractor has completed construction and "clean-up." A 'walk-through' by the Inspector will be conducted and a punchlist (a list of corrections) will be formulated as required. Once the Contractor completes the corrections, a notice of final inspection will be sent to the appropriate City departments for their inspection. If the work is not accepted for maintenance, a punchlist of corrections will follow until the job is brought up to maintenance standards. Contractor must allow a minimum of 15 working days after the "request for final inspection" for appropriate City Departments to complete final inspection.
- 12. <u>Certificate of Occupancy</u>: The inspector will notify the Department of Planning and Development(DPD) after he/she has accepted and signed the permit.
- 13. **Surety Bond:** When the work is approved and City charges paid, the surety bond is held for a time period of one year after the acceptance of the work. Final billing for the project may not be sent for a period of 90 days after the permit is signed off. If any deficiencies occur in that one-year period, the Permittee will be notified of the required corrections before the surety bond can be released. See "NOTICE TO PERMITTEE Surety Bond requirements at end of the construction phase."

Following discussion of the above items, the Contractor/Permittee identified the following persons:

Persons authorized to act for the Contractor/Permittee: At least one of the persons

listed below will be present or responsible for the permitted work:			
Name	Title	Phone	Pager
Name	Title	Phone	Pager
• Emergency respon time for emergency	se personnel who would be a conditions:	vailable and able to re	spond at <u>any</u>
Name	Title	Phone	Pager
Name	Title	Phone	Pager
	vised that construction would n duration. City survey is requ		and be
Contractor		Owner/Representa	tive
Address		Address	
City/Zip		City/Zip	
Phone		Phone	

Request for Approval of Material Sources Sample: 2.5

SF#_		Date:		<u> </u>
Project No Project Name:				
Bid		Sou	ırces of Supply	Approval
Item #	Description of Material	Local Supplier	Manufacturer or Pit #	Action *
Contr	actor:	Submitted b	y:	
*Sources of supply for all items checked () in approval column are approved for use on the above improvement provided the materials delivered comply with all specifications. Approval Action Codes for use by SPU Materials Laboratory only. 1. Source Approved: Acceptance based upon 'Satisfactory' test report for samples of materials to be incorporated into project. 2. Source Approved: Submit manufacturer certificate of compliance for 'Approval' prior to use of material. 3. Source Approved: Submit mill certs prior to use of material. 4. Source Approved: Submit catalog cuts and/or shop drawings for 'Approval' prior to use or fabrication of material. 5. Source Approved: Only 'Approved for Shipment' or 'WSDOT Inspected' material shall be used. 6. Source Approved: Request supplier to provide 'WSDOT Pipe Acceptance Report' with pipe upon delivery. 7. Source Approved: Submit mix design for 'Approval' prior to incorporation of material into project. 8. Approval Withheld: Submit samples for preliminary evaluation. 9. Approval Withheld: Submit brand name, name of manufacturer, treating plant, or WSDOT Pit number. 10. Approval Withheld: Submit bid item number. 11. Approval Withheld: Submit bid item number. 12. Approval Withheld: 13. Conditionally Approved: Date: By:				
I,	, have reviewed the above it	ems and () o	concur, () do not con	cur

Note: Forms not filled in completely will not be processed.

Senior Construction Engineer

Street Improvement Survey Guidelines

VERTICAL DATUM AND BENCHMARKS

Datum

The following vertical datum are used by the City of Seattle:



- 1. **City of Seattle** Vertical Datum. This datum was used for all survey and construction work in the City of Seattle from 1892 to 1992. It was gradually phased out from 1993 to 2002 as the NAVD-88 datum was being phased in (See #2 below). This datum is currently used for reference purposes only. Descriptions and elevations of City of Seattle benchmarks may be obtained by consulting City of Seattle Survey field books, available to the public on the forty-seventh floor of Seattle Municipal Tower at 700 Fifth Avenue¹.
- NAVD-88 Vertical Datum (1988 North American Vertical Datum). Control reports of acceptable NAVD-88 city established benchmarks are available at www.surveycontrol.state.wa.us and at the Engineering Records Vault, on the 47th floor of the Seattle Municipal Tower, 700 5th Avenue. Other 3rd-Order NAVD-88 benchmarks that have been recorded as a public record would also be acceptable.

Mandatory Vertical Datum

All survey and construction work performed within City of Seattle right-of-way from March 2002 forward shall be on the NAVD-88 datum.



Document Reference: You can verify NAVD-88 benchmarks, as well as survey procedures at the Web sites listed on this page.

SURVEY PROCEDURE

Project site benchmarks shall be established by measurement from *two local benchmarks* that are listed at http://www.surveycontrol.state.wa.us/, meeting Third Order procedural requirements, as specified Geospatial Positioning Accuracy Standards by the Federal Geographic Data Committee at http://www.fgdc.gov. A record of this field work shall be provided to Seattle Public Utilities in the form of a survey field book or an electronic file in ASCII, Microsoft Word, or Excel.

When reference is made to records/plans created using the City of Seattle datum², a local conversion factor between the City of Seattle datum and the NAVD-88 datum shall be established by differential leveling between benchmarks in each of the respective datum. A record of this fieldwork shall be provided to Seattle Public Utilities in the form of a survey field book or an electronic file in ASCII, Microsoft Word, or Excel.

¹ Although 0.0 City of Seattle datum is *approximately* equal to 9.7 NAVD-88, this difference should not be used as a means of establishing one datum from the other. The difference could vary as much as a foot from one part of Seattle to another!

These records could include plan drawings, survey field notes and other records.
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BENCHMARK DESCRIPTIONS

All plan drawings, survey field notes, and electronic files shall state which datum is being used and describe the benchmarks that were used.

- NAVD-88 benchmarks should list their benchmark number, Point Name (Designation)³, elevation, and description.
- City of Seattle benchmarks should list City of Seattle field book number, page, elevation, and description.
- Local project benchmarks set by the consultant should list elevation and description.

SURVEY CONTENT OF CONSTRUCTION PLANS

The following is the minimum survey information required on any plans.

Horizontal Control

City of Seattle monuments shall be the basis of horizontal control. The plan shall show the monuments used, describing the type of monument (e.g., monument in case) and what it monuments (e.g., intersection with centerline of 4th Avenue). If a construction baseline is created, its positional relationship to the monuments must be clearly defined (i.e., dimensions or coordinates).

All improvements and rights-of-way shall be stationed and dimensioned from the monument lines or baselines as described above. Wherever possible, street stationing shall be the stationing established by the City of Seattle when the streets were originally surveyed. This stationing can generally be found in the City of Seattle survey field books, which are referenced on the City's Quarter Section maps, both of which are available to the public on the 47th floor of the Seattle Municipal Tower at 700 5th Avenue.

Monument Replacement

- Any monuments that will be disturbed by construction must be noted on the plan as requiring replacement. The City of Seattle (Seattle Public Utilities, Engineering Dept., Survey Section) must be notified in sufficient time to reference the monument before it is disturbed. The City of Seattle will set all street monuments, whether they are replacements or new. For further details, see the Standard Specifications for Road, Bridge and Municipal Construction, 2000 Edition, Vol. 2, Sections 8-13.
- All horizontal curves shall be dimensioned with sufficient curve data to define their geometry (e.g., radius, curve length, delta, and PI or PC/PT stationing).



Document

Reference: The City's Quarter Section

the Seattle Public

Services Records Vault office on the 47th floor of Seattle

Utilities Engineering

MunicipalTower, 700 Fifth Avenue.

maps are available in

Document Reference: Standard Specifications for Road, Bridge and Municipal Construction, 2000 Edition, Vol. 2. Sections 8-13.

³ When utilizing City of Seattle NAVD-88 benchmarks, reference the record by the "Point Name (Designation)" as listed on the data sheet (e.g., SNV-7508). For benchmarks from other sources, reference by the "Point ID (PID)" or equivalent.

Paving and Curbs

- Profiles shall be included for all street centerlines and curbs, including curb returns.
- Profiles shall show PVI station and elevation, length of vertical curve, and grade of tangents.

Storm Drain and Sewer

- Location for manholes shall be to the "control point" that defines the alignment of the pipe. If the center of the manhole is offset from this point, this should be dimensioned in a detail.
- Horizontal location of the control point for each manhole shall be shown in the plan view by station and out from the monument line (or baseline if that is used).
- Profiles shall show invert elevation and rim elevation for each manhole. Invert
 grades shall be shown for the control point. The profile distance along the pipe
 should match the distance between the control points.

CONSTRUCTION SURVEY DOCUMENTATION

The City of Seattle shall be provided with a record of construction points set. This record should include the following:

- 1. A sketch showing the relationship of the monuments, improvements and the offset points set. The sketch should show all relevant dimensions and stationing, following good survey note keeping practices.
- 2. A hard copy or electronic file in ASCII, Microsoft Word, or Excel showing the grades set for the improvement (i.e., "grade sheet").

COMMON ERRORS TO AVOID

The following common errors are unacceptable on any plans submitted to the City of Seattle.

Paving Design

• The submitted plans have proposed new curbs, with a narrow strip of new paving between the new curb and a saw cut in the existing paving. The plan calls for a cross-slope of 2% and provides a profile, which appears acceptable. However, because of insufficient analysis of existing paving, unacceptable cross-slopes can result. The design must accommodate existing conditions.

Simple Math Errors

- Calculated distances between manholes (control points) are incorrect.
- Calculated grades between manholes (control points) are incorrect.

Inconsistencies

- Information in plan view is inconsistent with that in profile view.
- Information is inconsistent across match lines.

OBTAINING SURVEY SERVICES

Private surveyors may be hired to perform land survey services for preliminary engineering and engineering design. The survey process and product must meet the established guidelines found in the Street Improvement Survey Guidelines section of this document.

In addition, the engineer, developer, or contractor has the option of hiring private surveyors or City of Seattle surveyors to perform the construction staking and production of necessary grade sheets. Any survey work shall be done under the supervision of a licensed surveyor.

If the City of Seattle surveying unit is requested to perform the construction staking and grade, please coordinate the request through your Street Improvement Analyst to schedule the survey work.

Notice of Final Inspection <a href="Sample: "Sample: "Sam

Notice To:	Date:	
Job No.:		
Return to: SDOT Street Us 4996	se, 3700 Seattle Municipal Tower, 700) – 5 th Ave, Seattle 98124-
no later than		
Project Name		
Type of Work:	Plan N	Vo
Contractor:	Inspector:	Phone:
is now complete. Therefore	d the Street Use section that all work of e, a final inspection of this project is so location of	cheduled for
in need of correction to me will be compiled by the ST Contractor. If no response assumed that you have no amaintenance of those utility hold vested interest, owner been satisfactorily complete	noted discrepancies of work not satisfied the contract are requested. A combining the contract are requested. A combining the contract are requested and formally the street of the property of the project and are prepared to resume the set of the project and and/or corrected, a Notice of Company of the project of the pro	ined final "punch list" cransmitted to the red date, it will be responsibility for the area and in which you on said "punch list" have pletion will be sent to you.

__Date______

Notice to Permittee Surety Bond Requirements at End of Construction Phase

SAMPLE:

Project Address:	
Permit Number:	Date signed off:

Seattle Municipal Code requires the placement of a surety bond providing assurance of the completion of the project and payment for the review, inspection and other related costs. The Code also requires a product guarantee for the constructed items of a one-year period following acceptance by Seattle Department of Transportation.

This process occurs at the completion of the construction phase:

- Once the Seattle Department of Transportation Street Improvement Permit is signed off as complete by the Street Use Inspector, these things occur:
 - ➤ The DPD Building Inspector is notified.
 - The one (1) year maintenance period begins for the constructed items.
 - ➤ The inspection notes and hand prepared "as-built" plans are turned in for processing by Seattle Department of Transportation.
- The "as-built" process and billing is as follows:
 - The original mylar(s) for the project is/are "red line" modified to reflect field changes to the original plan.
 - ➤ Other records within the City are revised to reflect the new work. This activity is generally completed within two to four weeks.

Once the "as-built" process is completed, the billing is completed and the City has received full payment for the project, all charges would cease.

Per SMC 15.04.044B, the surety bond or cash deposit must remain in force for one year beyond acceptance of construction by Seattle Department of Transportation. Following the passage of a one-year maintenance period, the surety bond may be released. The surety bond can only be released / cancelled by specific approval by Seattle Department of Transportation. Once the responsible party on the bond believes all costs have been paid and the maintenance period is over, the obligee may contact the City to receive a bond cancellation letter. This written request for release must reference permit number and project address. It is to be addressed to:

Seattle Department of Transportation 3700 Seattle Municipal Tower 700 – 5th Avenue Seattle, WA 98104

Prior to the passage of the one-year maintenance form, the Inspector will look over the project to verify that improvements are free of defect. The Seattle Department of Transportation staff will verify that all bills have been paid and then the letter will be written.